

## Data Assessment Project

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The Department of Water Resources has been evaluating Delta water quality data since about 1982. First as the Interagency Delta Health Aspects Monitoring Program, which later was renamed the Municipal Water Quality Investigations Program.

Since the beginning of the study we have sampled at approximately 200 sites throughout the delta, including delta channels and agricultural drains. Perhaps 30 of those sites were visited over an extended period of time. The results of these studies have been chronicled in annual and summary reports published by the Department.

Even though there have been numerous reports, no one has looked at all of the data in summary. To this end, last spring we formed the Data Assessment Project work team. Our guidance committee included representatives from DWR, State Water Contractors, CAL FED, CUWA, and CCWD.

### Purpose:

Describe existing conditions for drinking water quality in the Delta.

Identify trends related to seasonality and /or hydrological conditions (Wet vs. Dry).

Identify data gaps.

Determine the suitability of the data for evaluating CAL FED actions.

This evaluation was planned for a couple of phases.

### Phase 1:

Look exclusively at DWR Water Quality data, mainly from the MWQI program, but some data collected by DWR Division of O&M.

We have developed a report outline and are in the process of hiring an ES III to assemble the report. Target date: January. (Optimistic)

We have selected a dozen stations based on their period of record, plus a few newer locations based on their potential importance. No Ag Drain stations are included in this analysis. The Agricultural Drainage data is being evaluated under the Candidate Regions Study being conducted by Marvin Jung.

We are looking at five key parameters known to be related to disinfection byproduct issues. These include: TOC, DOC, SUVA, Bromide, and EC.

### Status of the project:

We have prepared Time Series, Seasonal Statistics, Cumulative Probability Statistics, and Hydrographic Statistics (Wet vs Dry) for all 12 station x 5 parameter combinations.

Considering that there are up to six tables or charts for each analysis, this amounts to approximately 300 tables or graphs. (Some stations do not have full data).  
Database Update:

In addition to this work, we have created an improved database for the Department, which has greater qc documentation and improved sample description capabilities. We have been working on the historical MWQI data to convert it into the new database. The data import should be completed sometime in December.

Phase 2 of this project is intended to extend the basic work done in Phase 1:

In Phase 2 work we will:

Gather other relevant data sets.

Evaluate the data beyond the analysis conducted in Phase 1.

Example: Modeling, Artificial Neural Networks, Other Stat. Analyses

It is anticipated that this effort will include a wider group of participants - some from this audience - performing the analyses. This is something we look forward to, but realize that not everyone has been involved from the beginning.

To this end, we plan to hold a workshop to review all that DWR has learned over the past 17 years. We hope that this effort will help us to better coordinate the work to be done, and to help us focus on practical solutions in the Delta.